

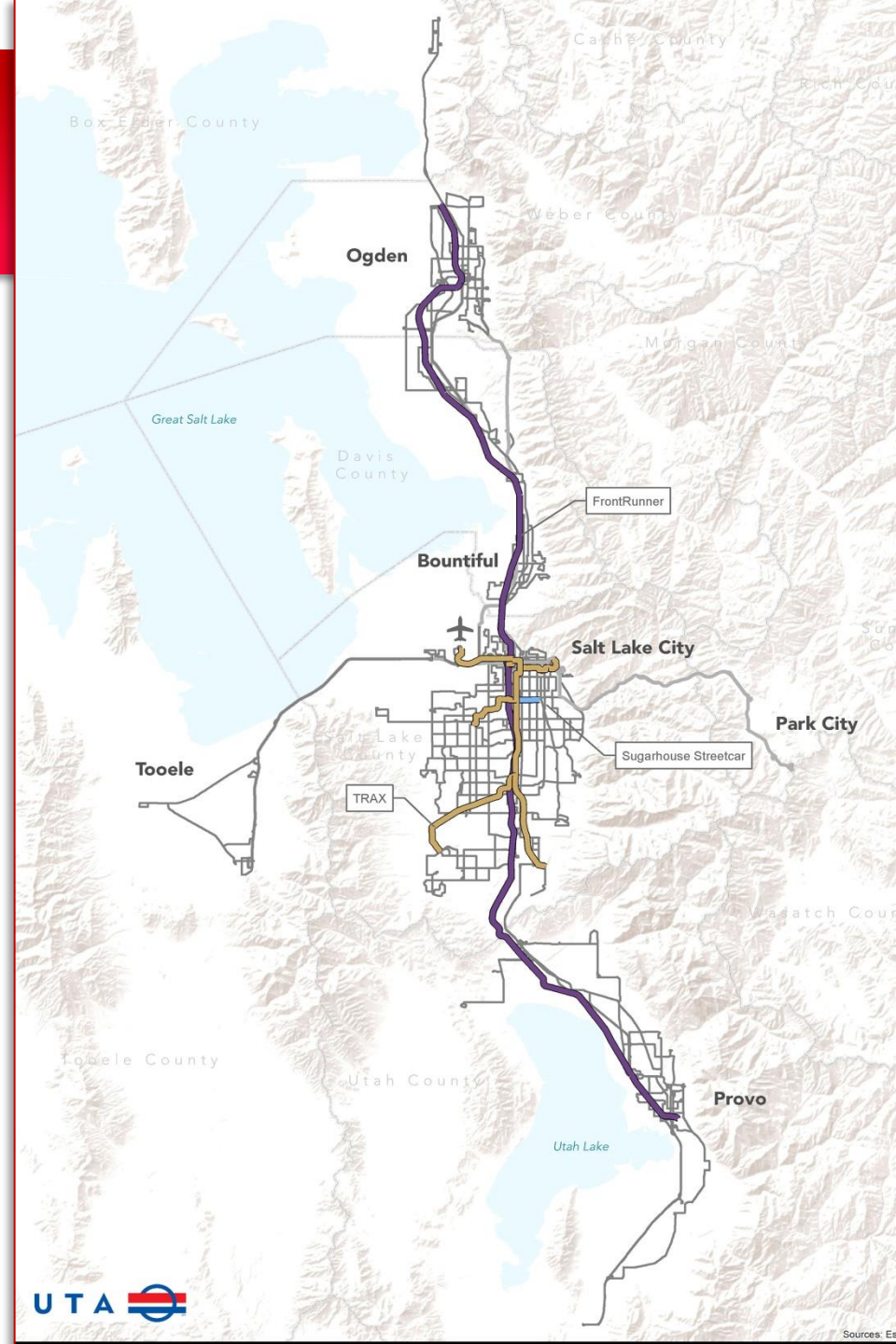
2015 Governor's Utah Energy Development Summit

*Solutions and Opportunities through Alternative
Transportation: UTA Perspectives*

May 2015

The UTA System

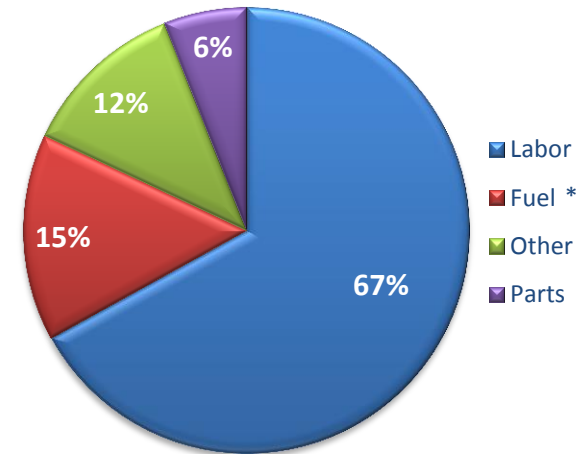
- 90 miles of FrontRunner
- 45 miles of TRAX
- 600 buses (100 paratransit)
- 100 bus routes
- 400 vanpools
- 7 counties served
- ***45 million passengers in 2014***



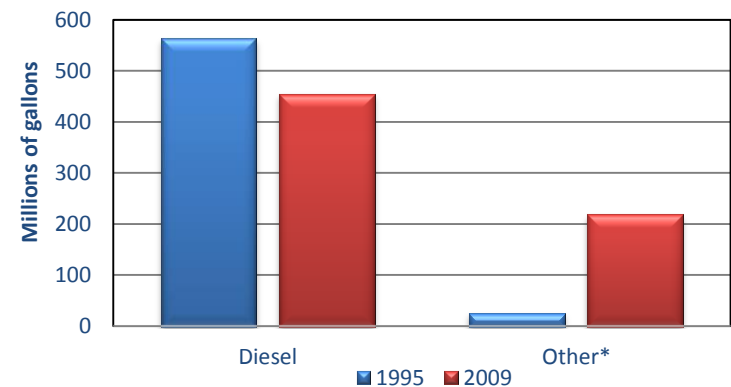
Why Alternative Fuels?



- Vehicle fuel consumption is the second largest operating expenditure at UTA (Labor is #1)
- Spread risk associated with future fuel volatility
- Better air quality
- Leveraging evolving efficiency technologies
- Since 1995, use of diesel fuel at U.S. transit agencies has decreased more than 20% while the combined use of alternative fuel types* has increased more than 800%



* Includes electricity for rail propulsion

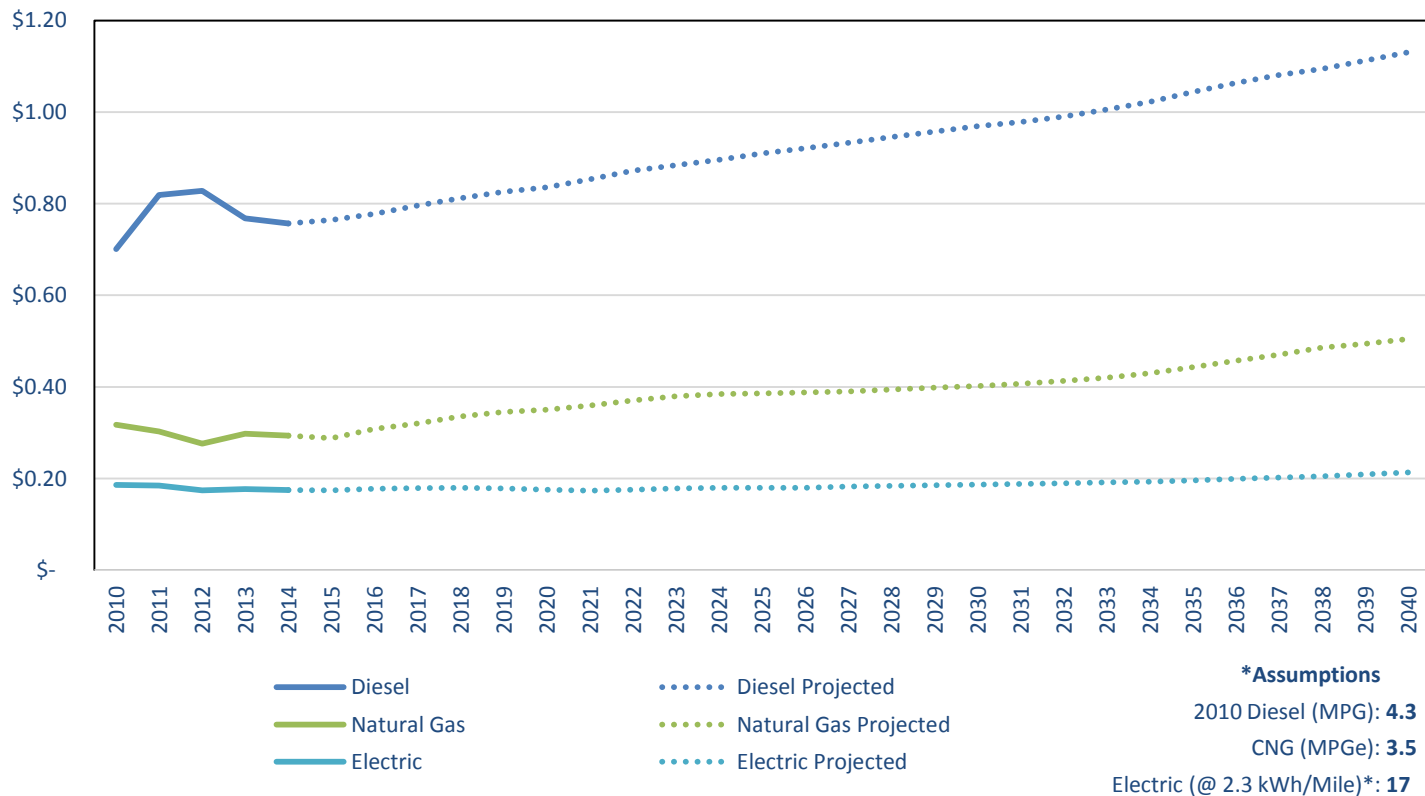


* CNG, LNG, gasoline, and Bio-diesel

Fuel Volatility



Projected Fuel Cost Comparisons Per Mile*, in 2013 Dollars



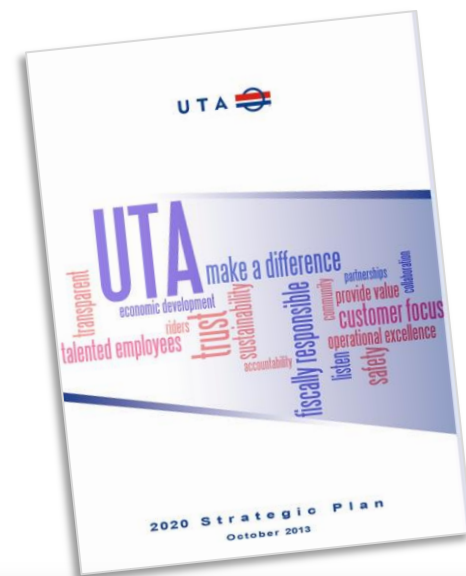
Source: ANNUAL ENERGY OUTLOOK 2014, US Energy Information Administration

Strategic and Board Goal Alignment



2020 Strategic Plan

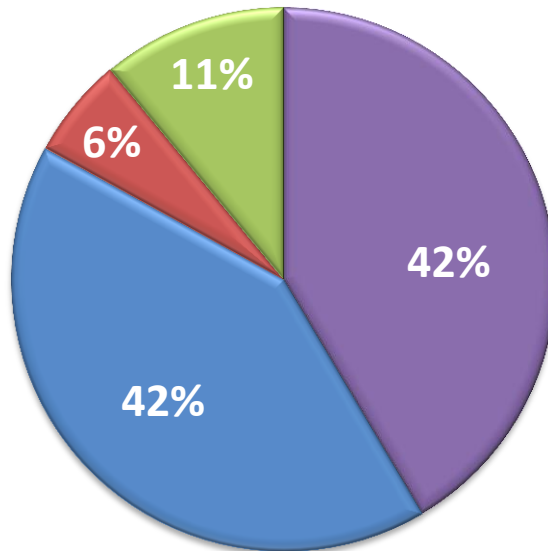
‘Operate a balanced fleet of alternative fuel vehicles’



UTA's Fleet Mix

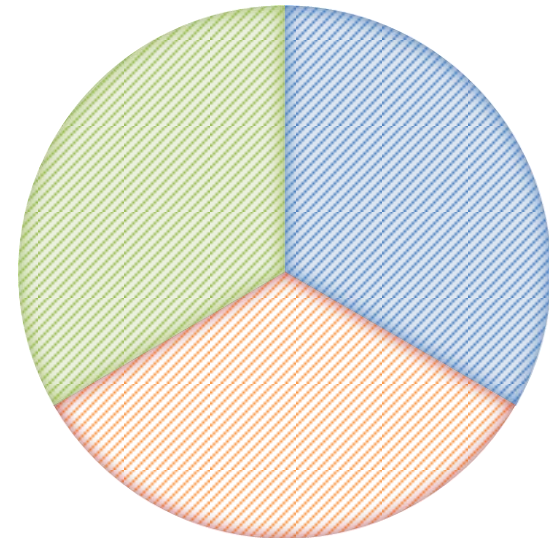


Today



- Diesel (Pre-2006)
- Clean Diesel
- Hybrid
- CNG

Future



Diesel Buses



- Currently 432 in the UTA Fleet
 - Pre-2006 Diesel Vehicles – 216
 - “Clean Diesel” Vehicles – 216
- Most common, reliable, highest horsepower technology available
- Existing infrastructure for fueling and maintenance
- Exhaust treatment and emissions control devices are complex and difficult to maintain



CNG Buses



- 57 in the UTA Fleet (with 2015/2016 orders)
 - Technology is being used by more than 40 transit agencies in North America
- Fuel is locally sourced



Gillig CNG Bus

Lower emissions of criteria air pollutants

- Compared to a model year 2000 diesel bus, a 2012 CNG bus releases:
 - 80% less Nox
 - 99% less PM
 - 100% less HC.
- By replacing 60 pre-2006 diesel buses with CNG buses in 2015 and 2016, UTA will save 1,200 tons of NOx, PM, and HC emissions over the life of the new buses (...equivalent to the weight of 60 buses!)

Hybrid Buses



- Currently 32 in the UTA Fleet
- Technology is being used by more than 60 transit agencies in North America
- Diesel-electric technology combines two energy converters:
 - An internal combustion engine
 - Electric battery powered drive

